

TABLE 14-1E
WARM AIR FURNACES AND COMBINATION WARM AIR FURNACES/AIR-CONDITIONING UNITS,
WARM AIR DUCT FURNACES AND UNIT HEATERS,
MINIMUM EFFICIENCY REQUIREMENTS

Equipment Type	Size Category (Input)	Sub-Category or Rating Condition	Minimum Efficiency ^b	Test Procedure ^a
Warm Air Furnace, Gas-Fired	< 225,000 Btu/h (66 kW)		78% AFUE or 80% E _t ^c	DOE 10 CFR Part 430 or ANSI Z21.47
	≥225,000 Btu/h (66 kW)	Maximum Capacity ^c Minimum Capacity ^c	80% E _c ^f	ANSI Z21.47
Warm Air Furnace, Oil-Fired	< 225,000 Btu/h (66 kW)		78% AFUE or 80% E _t ^c	DOE 10 CFR Part 430 or UL 727
	≥225,000 Btu/h (66 kW)	Maximum Capacity ^b Minimum Capacity ^b	81% E _t ^g —	UL 727
Warm Air Duct Furnaces, Gas-Fired	All Capacities	Maximum Capacity ^b Minimum Capacity ^b	80% E _c ^e —	ANSI Z83.9
Warm Air Unit Heaters, Gas-Fired	All Capacities	Maximum Capacity ^b Minimum Capacity ^b	80% E _c ^e —	ANSI Z83.8
Warm Air Unit Heaters, Oil-Fired	All Capacities	Maximum Capacity ^b Minimum Capacity ^b	80% E _c ^e —	UL 731
^a Reserved. ^b Minimum and maximum ratings as provided for and allowed by the unit's controls. ^c Combination units not covered by NAECA (3-phase power or cooling capacity greater than or equal to 65,000 Btu/h [19 kW]) may comply with either rating. ^d E _t = Thermal efficiency. See test procedure for detailed discussion. ^e E _c = Combustion efficiency (100% less flue losses). See test procedure for detailed discussion. ^f E _c = Combustion efficiency. Units must also include an IID, have jacket losses not exceeding 0.75% of the input rating, and have either power venting or a flue damper. A vent damper is an acceptable alternative to a flue damper for those furnaces where combustion air is drawn from the conditioned space. ^g E _t = Thermal efficiency. Units must also include an IID, have jacket losses not exceeding 0.75% of the input rating, and have either power venting or a flue damper. A vent damper is an acceptable alternative to a flue damper for those furnaces where combustion air is drawn from the conditioned space.				